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IN THE UNITED STATES DISTRICT COURT FOR THE
NORTHERN DISTRICT OF OKLAHOMA

W. A. DREW EDMONDSON, in his)
capacity as ATTORNEY GENERAL)
OF THE STATE OF OKLAHOMA and)
OKLAHOMA SECRETARY OF THE)
ENVIRONMENT C. MILES TOLBERT,)
in his capacity as the)
TRUSTEE FOR NATURAL RESOURCES)
FOR THE STATE OF OKLAHOMA,)
Plaintiff,)
vs.) 4:05-CV-00329-TCK-SAJ
TYSON FOODS, INC., et al,)
Defendants.)

- - - - -
VOLUME I OF THE VIDEOTAPED
DEPOSITION OF INDRAJEET CHAUBEY, PhD, produced
as a witness on behalf of the Plaintiff in the above
styled and numbered cause, taken on the 27th day of
January, 2009, in the City of Tulsa, County of
Tulsa, State of Oklahoma, before me, Lisa A.
Steinmeyer, a Certified Shorthand Reporter, duly
certified under and by virtue of the laws of the
State of Oklahoma.

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1 **A** Poultry litter indicates a combination of
2 poultry manure and bedding material that is in
3 poultry houses, what comes out after cleaning.

7 | MS. LONGWELL: Object to form.

9 Q Okay. Based upon your experience, knowledge,
10 review of published literature, do you have an
11 opinion of how far from the poultry barn the poultry
12 waste is usually taken to be land applied?

13 MR. GEORGE: Object to the form. Rick, I
14 want to elaborate for a moment on my objection.

17 those that he has previously expressed in any
18 literature, and by virtue of that, are trying to
19 turn Dr. Chaubey into yet another expert witness for
20 the State of Oklahoma, and the opinions that are
21 elicited in this deposition in that context are
22 untimely, and the defendants object to it.

23 MR. GARREN: And in response, I'm certainly
24 asking him from his personal experience facts and
25 other observations he's made, and I will reask the

1 question.

2 Q Based upon your personal experience, your
3 observations, including your training and reading of
4 published literature, do you have any idea or
5 opinion about how far waste is generally taken from 09:32AM
6 the poultry barn to be land applied?

7 MR. GEORGE: Same objection.

8 MS. LONGWELL: Object to form.

9 A Yes.

10 Q Tell us what you know. 09:32AM

11 A My understanding is that it does not travel
12 too far. Economically it's not viable to transport
13 poultry litter beyond a few kilometers from where
14 it's generated.

15 Q With regard to that poultry litter or waste, 09:32AM
16 in your study and in your investigations revolving
17 around BMPs and water quality, is it important to
18 know when poultry waste is land applied?

19 MS. LONGWELL: Object to form.

20 A Yes. 09:32AM

21 Q And in your work in the IRW, have you learned
22 from either personal experience, observation or
23 published literature, when poultry waste is
24 generally applied, when it is? What time of year is
25 my question. 09:33AM

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1 IN THE UNITED STATES DISTRICT COURT FOR THE
2 NORTHERN DISTRICT OF OKLAHOMA
3
4

5 W. A. DREW EDMONDSON, in his)
6 capacity as ATTORNEY GENERAL)
7 OF THE STATE OF OKLAHOMA and)
8 OKLAHOMA SECRETARY OF THE)
9 ENVIRONMENT C. MILES TOLBERT,)
10 in his capacity as the)
11 TRUSTEE FOR NATURAL RESOURCES)
12 FOR THE STATE OF OKLAHOMA,)

13 Plaintiff,)
14)

15 vs.)

16 TYSON FOODS, INC., et al,)
17)

18 Defendants.)
19)

20 - - - - -
21 VOLUME II OF THE VIDEOTAPED
22 DEPOSITION OF INDRAJEET CHAUBEY, PhD, produced
23 as a witness on behalf of the Plaintiff in the above
24 styled and numbered cause, taken on the 2nd day of
25 March, 2009, in the City of Tulsa, County of Tulsa,
State of Oklahoma, before me, Lisa A. Steinmeyer, a
Certified Shorthand Reporter, duly certified under
and by virtue of the laws of the State of Oklahoma.

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1 10:36 a.m.

2 (Following a short recess at 10:36
3 a.m., proceedings continued on the Record at 10:42
4 a.m.)

5 VIDEOGRAPHER: We are back on the Record at 10:41AM
6 10:42 a.m.

7 CROSS EXAMINATION

8 BY MR. BOND:

9 Q Dr. Chaubey, my name is Michael Bond and I
10 represent the Tyson defendants in this case. I 10:41AM
11 believe we've spoken once before on the telephone.
12 Do you recall that?

13 A I recall that.

14 Q Okay, and beyond that, we've never had any
15 conversations; correct? 10:42AM

16 A Yes.

17 Q Okay. Describe for me what you did to prepare
18 for what I'm calling day two of your deposition,
19 which is today.

20 A I did not prepare anything. I didn't even go 10:42AM
21 through some of my papers that we talked about. We
22 had a brief meeting in Mr. Garren's office
23 yesterday, talked about the process and a few of the
24 questions, but beyond that, there was no preparation
25 on my part involved. 10:42AM

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1 Q Did you read your deposition transcript from
2 day one of your deposition?

3 **A** I was E-mailed that transcript, and I read it
4 on my way here, yes.

5 Q Okay. How long -- did you talk with Mr. 10:43AM
6 Garren between the first day of your deposition and
7 the second day of your deposition other than the
8 meeting in person?

9 **A** No, we did not talk.

10 Q Okay. During your meeting yesterday -- strike 10:43AM
11 that. How long was your meeting with Mr. Garren
12 yesterday?

13 **A** I believe it was an hour.

14	Q	An hour?
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15	A	Yeah.	10:43AM
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16 | Q Okay. What specifically did you talk about?

17 **A** We -- it's hard to recall everything that we
18 talked about because there was nothing that was
19 striking in my mind, you know, from ranging from
20 classes that I have been teaching at Purdue and how
21 things are going in the research to what the process
22 will be today, and he talked about some of the
23 papers that would be used in some of the questions
24 that he would ask.

25 Q Okay. Did he actually ask you the questions, 10:44AM

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1 some of the same questions that he asked you today?

2 **A** He gave me an example of some of the
3 questions, but I don't think he asked any of the
4 questions exactly yesterday. He said that these are
5 the kind of questions I may ask you tomorrow. 10:44AM

6 **Q** Okay. With regards to day one of your
7 deposition, which was taken previously, tell me what
8 was done to prepare for that.

9 **A** On my part?

10 **Q** Yes. 10:44AM

11 **A** I did not know how to prepare for that, except
12 look at the list of my papers and publications, and
13 there were too many for me to read, given all of the
14 responsibilities I've got at Purdue.

15 **Q** Uh-huh. 10:44AM

16 **A** So I didn't know how to prepare, so I did not
17 prepare.

18 **Q** Okay. Did you -- you didn't review any of
19 your prior work related to the Illinois River
20 watershed before your first day? 10:45AM

21 **A** I -- I may have skimmed through the pages to
22 refresh my memory, but I did not read any of the
23 papers in detail.

24 **Q** Did you have any conversations with Mr. Garren
25 or any other counsel for the State of Oklahoma prior 10:45AM

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1 to your first day?

2 **A** We had one meeting at Purdue with Mr. Garren
3 and Mr. Louis -- I don't remember his last name.

4 **MR. GARREN:** Bullock.

5 **Q** Mr. Bullock? 10:45AM

6 **A** Mr. Bullock.

7 **Q** When was that meeting?

8 **A** I don't remember the day or the month, but a
9 few months ago.

10 **Q** Okay. They traveled out to see you? 10:45AM

11 **A** Yes.

12 **Q** Did they meet with anyone else while they were
13 there?

14 **A** In -- Dr. Bernie Engel was present in that
15 meeting, too. 10:46AM

16 **Q** Okay. So let's get an idea of who all was in
17 the meeting. Right now I understand it was Mr.
18 Bullock, Mr. Garren, you and Dr. Engel?

19 **A** Yes.

20 **Q** Was that everyone that was in that meeting? 10:46AM

21 **A** I think that was everyone in that meeting.

22 **Q** And how long did that meeting last?

23 **A** It lasted probably two to three hours, and
24 then we went for lunch.

25 **Q** Did you talk about a deposition in this case 10:46AM

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1 during that meeting?

2 **A** I was asked if I would be willing to make a
3 deposition, and my answer was yes.

4 **Q** Okay. Why were you willing to give a
5 deposition?

10:46AM

6 **A** I believe science should guide the policy in
7 any area, and someone who has worked extensively in
8 the watershed management and non-point source
9 pollution, looking at data collection, looking at
10 modeling, if my knowledge and expertise can guide
11 the policy decisions, I believe in that. So that
12 was what motivated me to say yes.

10:47AM

13 **Q** So you have a personal and a professional
14 interest in this?

15 **A** I have a professional interest into this.

10:47AM

16 **Q** Dr. Engel is one of your peers?

17 **A** Yes.

18 **Q** At Purdue?

19 **A** Yes.

20 **Q** Does he have any supervisory capacity or
21 review capacity over you?

10:47AM

22 **A** He is the department head in one of the three
23 departments in which I have an appointment right
24 now.

25 **Q** During this meeting with Dr. Engel, Mr. Garren

10:48AM

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1 and Mr. Bullock and yourself, did you review any
2 documents?

3 A I did not review any document during that
4 meeting.

5 Q Were you shown any documents? 10:48AM

6 A Mr. Garren had a three-ring binder like that,
7 but I don't recall taking that -- I mean, not that,
8 but a binder like that in my hand and going through
9 that. So I don't know what was in there. We just
10 sat down and talked. 10:48AM

11 Q Okay. Did they ask you specific questions
12 about studies you worked on?

13 A Yes.

14 Q Okay. Can you tell me -- do you recall
15 anything about that? 10:48AM

16 A So I remember one of the studies we talked
17 about was my runoff study that I did in Savoy
18 Experimental Watershed, what kind of things I've
19 done and what I've found. We talked in general
20 about my Moores Creek studies and what was the 10:49AM
21 purpose and what were the conclusions.

22 Q Okay.

23 A So a general discussion about some of the work
24 that I have done in this watershed.

25 Q Okay. Did you know when they first came to 10:49AM

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1 see you that they were going to ask you to give a
2 deposition in this case?

3 **A** I did not know that.

4 **Q** When during the meeting did they ask you that,
5 at the beginning, middle or the end? 10:49AM

6 **A** Sometime towards the middle, you know, Mr.
7 Garren asked me, Dr. Chaubey, would you be willing
8 to do that.

9 **Q** Okay, and did you hesitate at all, think about
10 it or did you just say okay? 10:49AM

11 **A** I thought about it. I mean, you know, it
12 requires time, and I don't have time to say yes to
13 every request that comes my way.

14 **Q** Okay.

15 **A** So I thought about it. 10:50AM

16 **Q** Have you given a deposition before?

17 **A** No. This is my first deposition.

18 **Q** Okay. Have you ever been retained in a
19 lawsuit?

20 **A** No. 10:50AM

21 **Q** Okay, but you did work with the special master
22 in the Eucha-Spavinaw case?

23 **A** Yes.

24 **Q** When did you give them your answer as to
25 whether or not you were willing to give the 10:50AM

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1 deposition; during that meeting?

2 **A** Because it was a general question, my general
3 answer was, yes, I will be willing to do that.

4 **Q** Okay, and you gave that answer during the
5 meeting?

10:50AM

6 **A** I believe so.

7 **Q** Okay, and during that meeting you agreed to
8 travel to Tulsa for the deposition as opposed to it
9 being in your own hometown?

10 **MR. GARREN:** Object to form.

10:51AM

11 **A** We did not discuss any specifics, so it was
12 just one general question.

13 **Q** Okay. Well, did you think the deposition
14 would be at Purdue or did you think it would be
15 here?

10:51AM

16 **A** I had no idea because I didn't think about it.

17 **Q** Okay, and are all of your expenses associated
18 with this deposition being taken care of by the
19 plaintiff's counsel?

20 **A** The hotel and airfare has been directly
21 advanced by Mr. Garren.

10:51AM

22 **Q** Okay. I mean, are they allowing you to eat?

23 **A** Yes, and I have not submitted my receipts yet,
24 so -- and I frankly don't even have all my receipts,
25 so I don't know. There is no per diem or anything.

10:51AM

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1 We have not talked about it.

2 Q Okay. Have you incurred any other expenses
3 beyond airfare and hotel?

4 A Parking at the airport of my own vehicle.

5 Q What's the total expenses so far for you to 10:52AM
6 involve yourself in this?

7 A I don't know. You know, I've not summed it up
8 to know that and, frankly, I don't even know what
9 the airfare -- I guess it's on the receipt but I
10 have not paid attention. 10:52AM

11 Q Okay. Do you expect to be compensated for
12 your time associated with this?

13 A I don't.

14 Q If your -- strike that. So you had that
15 meeting at Purdue. Did you have any other meetings 10:52AM
16 or conversations with plaintiff's counsel about your
17 deposition prior to your first day?

18 MR. GARREN: Object to form.

19 A I had one introductory meeting as in just the
20 greetings meeting with David Page when he was at 10:53AM
21 Purdue at one time. We just exchanged greetings and
22 -- because I happened to be in the room where they
23 were meeting, but beyond that, there was no other
24 discussion.

25 Q So did Mr. Page come to Purdue and meet with 10:53AM

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1 Dr. Engel?

2 **A** I don't know who he was meeting. I -- I -- I
3 have no idea.

4 **Q** Well, who was in the room?

5 **A** When I met him? Dr. Engel was in that room, 10:53AM
6 yeah, so but --

7 **Q** Anyone else?

8 **A** At that time? You know, I don't remember --

9 **Q** Okay.

10 **A** -- anyone, besides him, from Purdue. 10:53AM

11 **Q** And how long were you in that meeting?

12 **MR. GARREN:** Object to form.

13 **A** Less than five minutes.

14 **Q** Less than five minutes?

15 **A** Yeah. 10:53AM

16 **Q** There were others in that room but not from
17 Purdue. Who were the others? Dr. Wells?

18 **A** Who is Dr. Wells?

19 **Q** He's a modeler. Don't know him?

20 **A** I don't know him. 10:54AM

21 **Q** Okay. Meagan Smith, do you know her?

22 **A** I don't know her.

23 **Q** Don't know her, okay. All right. You were in
24 that meeting for five minutes. What were they

25 discussing in this meeting? 10:54AM

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1 **A** I -- I don't know if they were discussing
2 anything during the time I was there. It was all,
3 you know, extending greetings, introducing one
4 another, but nothing beyond that. I left the room
5 because I had no interest or time to be in that 10:54AM
6 meeting. I don't think I was invited to be in that
7 meeting either.

8 **Q** Well, that's my next question. How did you
9 end up in there?

10 **A** The meeting room was right next to my office, 10:55AM
11 and I have my group meetings, meetings with my
12 students, my associates all the time. So it may
13 have overlap during, you know -- and I meet in that
14 room all time because that's one of the two
15 conference rooms we have in our building. I don't 10:55AM
16 remember the context because I know I was not
17 invited to be a part of that meeting.

18 **Q** Have you talked to Mr. Page at any other time?

19 **A** Except extending greetings in this building,
20 no. 10:55AM

21 **Q** No, okay. What did you talk about in the five
22 minutes that you were with Mr. Page? It doesn't
23 take more than five minutes to just introduce. So
24 that's why I'm asking that.

25 **A** Yes. So he asked me how long I was at Purdue 10:56AM

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1 and he asked me if I was doing similar work I had
2 done from Arkansas. I assumed he was familiar with
3 my work in Arkansas, and how things, you know, were
4 going at Purdue, how I liked it. So it's general
5 talks that I would expect anyone to talk who was 10:56AM
6 familiar with me in Arkansas and now met me at my
7 new workplace.

8 Q Okay. All right. What about any other
9 meetings you've had? So let me sum it right now.
10 Before the first deposition, you met with Mr. Garren 10:56AM
11 and Bullock at Purdue. You met Mr. Page briefly.
12 Any others?

13 A In connection with this case?

14 Q Yes.

15 A I don't recall any other meetings. 10:56AM

16 Q Okay. So when you arrived in Tulsa for your
17 first deposition, you had no meetings with
18 plaintiff's counsel prior to that deposition being
19 commenced, like the day before?

20 MR. GARREN: Object to form. 10:57AM

21 Q Didn't meet with them?

22 A So I met the day before my first deposition,
23 again, with Mr. Garren here in his office.

24 Q Okay. Tell me what happened in that meeting.

25 A We talked about what to expect the next day 10:57AM

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1 because this was my first deposition ever, went
2 through the format, kinds of questions he might be
3 asking, kind of things I might expect from the
4 defendants' attorneys who may be present in the
5 room. So he was familiarizing me with the process
6 with the kind of questions, with the kind of things
7 that would happen the next day.

10:57AM

8 Q And you're aware that Dr. Engel is a retained
9 expert by the State of Oklahoma in this lawsuit;
10 correct?

10:58AM

11 A I found out recently about it.

12 Q Okay. How did you find out about that?

13 A It -- I don't know that he is a paid expert
14 but I know that he has been involved in this
15 lawsuit, but I don't know about the payment
16 arrangement.

10:58AM

17 Q Okay. Well, how do you know about his
18 involvement?

19 A I have asked him if he was involved, and his
20 answer was yes.

10:58AM

21 Q Okay. How did you know about the lawsuit?

22 A Lots of things were developing when I left
23 Arkansas with this water quality conflict between
24 Oklahoma and the defendants here. So for the time
25 period, I had followed up, you know, talking to my

10:59AM

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1 colleagues here in northwest Arkansas because we are
2 still working on a number of projects together, so
3 these kind of things come up and so you find out
4 during those conversations.

5 Q Okay. I didn't catch the name of the person 10:59AM
6 that you're talking about. Did you say Marc Nelson?

7 A I don't think I --

8 Q Okay. All right.

9 A I said my colleagues.

10 Q Colleagues? 10:59AM

11 A Yeah.

12 Q Okay, all right. Colleagues that are still at
13 the U of A?

14 A Yeah, yeah.

15 Q Okay, all right.

16 A And we still have got projects going on with
17 them.

18 Q Okay. So, I mean, have you continuously
19 followed the lawsuit --

20 MR. GARREN: Object to form. 10:59AM

21 Q -- since you left?

22 A No, I have not.

23 Q Okay. You're just aware of its existence?

24 A I'm -- I'm aware that it exists.

25 Q What prompted you to ask Dr. Engel if he was 11:00AM

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1 working on a lawsuit in Oklahoma?

2 **A** I had heard that when I was involved in the
3 Eucha-Spavinaw. He was one of the expert witnesses
4 at that time, although I had never met with him in
5 that context.

11:00AM

6 **Q** Okay.

7 **A** So out of curiosity, I wanted to know, and
8 because I had seen Mr. Page at Purdue and I knew
9 that Mr. Page is one of the attorneys in Oklahoma,
10 and asked him.

11:00AM

11 **Q** Okay. Had you met Mr. Page before then?

12 **A** No.

13 **Q** How did you know he was one of the attorneys
14 in Oklahoma?

15 **A** I had -- I may have heard his name in some
16 conversation.

11:00AM

17 **Q** Okay. All right. This part I'll jump around
18 a little bit.

19 **A** Okay.

20 **Q** It will have little to no rhyme or reason to
21 the order, so it's just me kind of looking through
22 my notes and figuring things out here, but I want to
23 understand some of the opinions that you've given
24 here. First of all, I mean, do you believe that a
25 vegetative filter strip or a buffer strip to be an

11:01AM

11:01AM

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1 effective tool in improving water quality?

2 MR. GARREN: Object to form.

3 **A** If installed and maintained properly, it can
4 retain a significant amount of nutrients moving
5 through the filter area.

11:01AM

6 **Q** So is that a yes or a no?

7 MR. GARREN: Object to form.

8 **Q** Is it effective or is it not?

9 **A** It depends how you maintain it. If it is
10 installed properly, if it is designed properly and
11 if it is maintained properly, it will reduce the
12 risk of water quality degradation significantly.

11:02AM

13 **Q** So similar to other tools or uses in life, if
14 it's set up correctly and maintained, it works;
15 correct?

11:02AM

16 MR. GARREN: Object to the form.

17 **A** It works depending upon what your purpose is
18 or what your objective is.

19 **Q** Okay. What's the life span of a vegetative
20 buffer strip in the Illinois River watershed; do you
21 know?

11:02AM

22 **A** I don't know that.

23 **Q** Okay. Can you tell me anywhere in the
24 Illinois River watershed where ineffective
25 vegetative buffer strips are located?

11:03AM

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1 MR. GARREN: Object to form.

2 A If you look at some of the riparian areas, you
3 see animal crossings.

4 Q What kind of animal?

5 A Cows grazing in the surrounding pasture areas. 11:03AM

6 Q Okay.

7 A And that -- the results of that may result
8 into degradation and significant erosion and
9 development of generalized flow through the riparian
10 area, and there are at least two sites that I have 11:03AM
11 seen and they're mostly where I have worked quite a
12 bit.

13 Q So let me see if I understand. Basically
14 you're talking about areas where cattle cross
15 streams or creeks in the Illinois River watershed; 11:04AM
16 correct?

17 MR. GARREN: Object to form.

18 A Based on my direct experience, yes.

19 Q Okay. And basically what's happened is a path
20 has been worn out and it's like a little trail that 11:04AM
21 they walk on consistently; correct?

22 A It may be more than just a worn-out path. It
23 may be areas surrounding that path.

24 Q Okay. How many of these areas are you
25 familiar with? 11:04AM

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